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Burnout syndrome, job satisfaction and associated factors among primary health care doctors in Erzurum, Turkey

Türkiye, Erzurum ili birinci basamak sağlık kurumlarında görev yapan hekimlerin tükenmişlik sendromu, iş doyumu düzeyleri ve ilişkili faktörler

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Abstract

Aim: The aim of this study was to determine burnout and job satisfaction levels and related factors among general practitioners in Erzurum province.

Methods: 246 out of the 253 physicians working in primary health institutions in Erzurum in 2012 were included in the study. Data were collected using a Personal Information Form, the Maslach Burnout Inventory (MBI), and the Minnesota Satisfaction Questionnaire (MSQ).

Results: Males represented 72.8% (n=179) of the participating physicians, and 70.7% (n=174) were married. The mean age of the participants was 34.0±5.7 years, and 92.7% (n=228) believed that the profession was not valued as it deserved in the community. We found higher depersonalization scores and lower personal accomplishment scores in physicians aged 29 or less compared to those aged 40 or over (OR: 2.28, 95% 1.50 – 4.92, p=0.03). Job satisfaction and personal accomplishment scores were higher among physicians taking regular vacations, while emotional exhaustion was higher among those not taking regular vacations. (p<0.05). MBI subscale scores of emotional exhaustion, depersonalization, and personal accomplishment were low, at 69.1%, 75.6%, and 70.3%, respectively. The general job satisfaction score was moderate, at 70.6%.

Conclusion: Both burnout and job satisfaction were high in 1/3 of the general practitioners working in primary health care services. Activities to combat physician burnout and motivate health are needed.

Keywords: Burnout, Job satisfaction, Physician, Erzurum

Öz

Amaç: Bu çalışmanın amacı, Erzurum ilindeki pratisyen hekimler arasında tükenmişlik ve iş doyumu düzeylerini ve ilişkili faktörleri belirlemektir.

Yöntemler: Erzurum'da 2012 yılında birinci basamakta çalışan 253 doktordan, 246 tanesi çalışmaya dahil edilmiştir. Veriler Kişisel Bilgi Formu, Maslach Tükenmişlik Ölçeği (MTÖ) ve Minnesota İş Doyumu Ölçeği (MİDÖ) kullanılarak toplanmıştır.

Bulgular: Çalışmaya katılan hekimlerin %72,8'i erkek, %70,7'si evli ve yaş ortalamaları 34,0±5,7 şeklindedir. Mesleğinin toplumda hak ettiği değeri bulduğuna inanmayanlar %92,5 olduğu saptanmıştır. 40 yaş üstü hekimlerin kişisel başarı puanları 29 yaş altındaki doktorlara göre daha düşük bulunmuştur (OR: 2,28, %95 1,50 – 4,92, p=0,03). Düzenli tatil yapmayan hekimlerin düzenli tatil yapmayan hekimlere göre iş doyumu ve kişisel başarı puanları daha yüksektir (p<0,05).

Hekimlerin, MTÖ alt boyutları olan duygusal tükenmişlik, duyarsızlaşma, kişisel başarı puanları sırasıyla %69,1'inde, %75,6'sında ve %79,3'ünda düşük saptanmıştır. Genel iş doyumu puan ortalaması ise %70,6'sında orta düzeyde bulunmuştur.

Sonuç: Birinci basamak sağlık kurumlarında görev yapan hekimlerin 1/3'ünde tükenmişlik ve iş doyumu yüksek bulunmuştur. Bu durum göz önüne alınarak, hekimlerin tükenmişlik düzeylerini azaltmaya, iş doyumu düzeylerini arttırmaya yönelik öneriler yapılmıştır.

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Introduction

Burnout is a syndrome, in which emotional exhaustion, depersonalization, and low personal accomplishment may occur among workers in jobs requiring interpersonal contact [1]. Emotional exhaustion manifests with a feeling of lack of energy and consumed emotional resources. Depersonalization exhibits with workers treating the individuals whom they serve as if they were objects rather than human beings. Low personal accomplishment manifests with a decrease in feelings of success and sufficiency in association with work and relations with people encountered in the context of work. Burnout results in losing creativity and not striving for improvement [2]. The characteristic that distinguishes burnout from other reactions is that it emerges as a result of frequent and intense interactions other people encountered in the work context.

People spend a significant part of their day-to-day lives working. Hence, work is not only important in economic terms but also performs an important psychological role. Job satisfaction is defined as a positive emotional state emerging as a result of the value the individual attaches to his work. Job satisfaction is evaluated as a measure of the presence of a sound working environment in an institution and is defined as the satisfaction or dissatisfaction that people feel with their jobs [3].

An individual's dissatisfaction with his job can be due to burnout. Job dissatisfaction associated with work deficiencies, the individual's own deficiencies and exhaustion associated with work deficiencies all result in poor performance. The concepts of both burnout and job dissatisfaction are especially important in medicine, a profession involving intensive face-to-face contact with people. These two phenomena are inter-related, one increasing or decreasing together with the other [4].

The health system in Turkey was changed in 2004 with the replacement of the 'Law No. 224 on the Socialization of Health Services', dated 1961 by the 'Family Medicine Pilot Implementation Law No. 5258,' leading to the adoption of the 'Family Medicine Model' [5,6]. The Family Medicine Model was first implemented in the province of Düzce in 2005. In Erzurum, the model was adopted in 2008. Under the Directive on Family Medicine Implementation (FMI), primary health care services are mainly provided in Family Health Centers and Public Health Centers [6].

In addition to the difficulty involved in serving sick individuals, a particularly sensitive group, primary care physicians also have to make decisions regarding clinically uncertain situations face the consequences of those decisions. Fear of malpractice makes medicine a particularly stressful profession. Family physicians encounter undifferentiated patients, as mentioned under the core competencies by WONCA (World Organization of National Colleges). One of the most significant difficulties in family medicine is the management of patients with clinically undifferentiated symptoms [7]. Besides, deficiencies deriving from the health system and unbalanced distribution of services and personnel can create disappointment and tension in family physicians. Work-related pressures can cause psychological effects such as anxiety, hopelessness, depression, and somatic effects including headache, muscular tension, and sleeplessness. The result is a decrease in employee productivity, poor timekeeping, and absenteeism without valid justification; even entire abandonment of the job comes into question. Studies have shown that burnout syndrome affects personal and professional productivity in 30-40% of physicians [8].

Until the FMI in 2010, primary care physicians were known as 'general practitioners' who were subsequently referred to as 'family physicians'. Family physicians began providing preventative, therapeutic and rehabilitative health services in family health centers.

There is a substantial probability that this change in the health system in Turkey will have a positive or adverse impact on job satisfaction and burnout levels among physicians working in primary health services. Hence, regular monitoring of employee satisfaction and burnout bears critical importance in the sense of judging the changes in the health system. With this study, we aimed to determine burnout and job satisfaction levels and associated factors among general practitioners in the Erzurum province.

Materials and methods

The study was conducted in the Erzurum province, an eastern province of Turkey with around 600,000 inhabitants. During the study period, 253 physicians were working in the primary health institutions in Erzurum. Our cross-sectional study between March and June 2012, included 246 (97.2%) physicians from the study population. Since the survey aimed to cover all study population, we did not make a sample size calculation.

Following ethical and official permissions and verbal consent from physicians, the participants were asked to complete the study questionnaire. Data collection was done during working hours, at time slots when physicians were least busy. A personal information form intended to elicit physicians' sociodemographic characteristics. Also, the Maslach Burnout Inventory (MBI) developed to measure burnout levels, and the Minnesota Satisfaction Questionnaire (MSQ) short form intended to measure job satisfaction were applied to all participants.

Data Collection

1. Sociodemographic information form: After seeking expert opinion, these questions concerning various personal and professional characteristics and physicians' views regarding their working conditions were prepared by the researchers.

2. Minnesota Satisfaction Questionnaire (MSQ): The MSQ consists of 20 questions. Two forms of this scale are available; long and short. The short form was employed in this study.

The MSQ was developed in 1967 by Weiss et al. to determine job satisfaction levels [9]. The scale was translated into Turkish by Baycan, and its validity and reliability were established [10]. The general satisfaction score is obtained by dividing the total scores from the 20 items by 20. Means of all scores are calculated as values between 1.0 and 5.0. In percentage terms, values of 25% or below indicate low job satisfaction, values of 26-74% indicate moderate job satisfaction and values of 75% or more indicate good job satisfaction.

3. Maslach Burnout Inventory (MBI): This scale was validated by Ergin [11] for Turkish and consists of 22 questions

on a 5-point Likert scale. It contains three subdimensions: emotional exhaustion, depersonalization, and personal accomplishment. The emotional exhaustion and depersonalization subdimensions consist of negative statements while the personal accomplishment subdimension has positive items. The scores for each subdimension are therefore evaluated separately. Higher emotional exhaustion and depersonalization scores or lower personal accomplishment scores indicate burnout. Scores of 28 or more for emotional exhaustion are assessed as high, scores of 21-27 as moderate and of 21 or less as low, while for depersonalization, scores 13 or above are regarded as high, scores of 9-12 as moderate and of 8 or less as low, and for personal accomplishment, scores of 0-23 are considered to be low, scores of 24-26 as moderate and scores of 27 or more as high [11].

Data were entered into the computer and analyzed on the SPSS for Windows 18.00 software. Normal distribution of data was assessed using the Kolmogorov-Smirnov test. The parametric one-way analysis of variance (ANOVA) and t-test, and the non-parametric Kruskal Wallis and Mann Whitney U tests were used for analysis. Post-hoc Bonferroni correction was used to determine the variable representing the source of variation for parametric variables and Bonferroni corrected Kruskal Wallis and Mann Whitney U tests for non-parametric variables. $p<0.05$ was considered as statistically significant.

The MBI and MSQ subdimension scores were grouped into binary variables based on their median values. The effects of independent variables were measured using binary logistic regression analysis where lower categories were regarded as reference values.

Results

A total of 246 physicians were enrolled, of which 72.8% (n=179) were males, and 70.7% were married. The mean age of the physicians was 34.0 ± 5.7 years. Distribution of other sociodemographic characteristics of the participants is shown in Table 1.

Regarding the total length of service, 49.6% (n=122) of physicians had been in the profession for six years or less and 7.7% (n=19) for 18 years or more. On the other hand, 62.2% (n=153) stated that their expectations were partially met and 46.7% (n=115) that the physical conditions in the workplace were partly adequate. Besides, while 82.9% (n=204) of physicians had received in-service training in the previous year, 29.7% (n=73) had attended no congress, course or seminar, but 78.8% (n=n=194) reported reading medical publications from time to time. Other professional characteristics of the physicians in the study are shown in Table 2.

The mean MBI scores of the participants were 17.14 ± 7.5 for emotional exhaustion, 5.85 ± 3.8 for depersonalization, and 20.0 ± 4.34 for personal accomplishment. The mean job satisfaction score from the MSQ was 3.22 ± 0.63.

Mean depersonalization and general job satisfaction scores were significantly higher among physicians aged 29 or more ($p<0.05$). Job satisfaction and personal accomplishment scores were higher among physicians taking regular vacations, while emotional exhaustion was higher among those not taking regular vacations ($p< 0.05$). On the other hand, mean job satisfaction scores were lower among physicians who believed they had chosen the wrong profession ($p<0.05$). Various physician characteristics and mean MBI subscale and general job satisfaction scores are shown in Table 3.

Table 1: Distribution of participant characteristics (n=246)

	n	%
Age group		
<29	60	24.4
30-39	138	56.1
>40	48	19.5
Sex		
Male	179	72.8
Female	67	27.2
Marital Status		
Married	174	70.7
Single	69	28.0
Widowed/Divorced	3	1.2
Exercise activity		
Yes	51	20.7
No	195	79.3
Vacation within last year		
Taken	104	42.3
Not Taken	142	57.7
Chronic disease status		
Yes	29	11.8
No	217	88.2
Smoking status		
Current smoker	80	32.5
Ex-smoker	56	22.8
Never smoker	110	44.7
Alcohol consumption		
Yes	25	10.2
No	221	89.8
Place of residence		
Provincial center	117	47.6
District center	103	41.9
Township/Village	26	10.6

Table 2: Distribution of the physicians' professional characteristics (n=246)

	n	%
Is the profession valued as it deserves in the community?		
Yes	18	7.5
No	228	92.5
Opinions concerning selection of the profession		
Correct Choice	78	31.7
Partially Wrong Choice	121	49.2
Wrong Choice	47	19.1
Are professional expectations met?		
Yes	35	14.2
Partly	153	62.2
No	58	23.6
Physical conditions in the workplace		
Adequate	57	23.2
Partially Adequate	115	46.7
Inadequate	74	30.1

Table 3: Relationship between various physician characteristics and burnout and general job satisfaction scores

	MBI-EE Mean ± SD	MBI-D Mean ± SD	MBI-PA Mean ± SD	General job satisfaction Mean ± SD
Sex				
Male	17.62 ± 7.7	6.3 ± 3.9	20.2 ± 4.39	3.16 ± 0.65
Female	15.8 ± 6.9	4.5 ± 3.2	19.3 ± 4.1	3.38 ± 0.57
	P^1=0.10	P^1<0.01	P^1= 0.14	P^1=0.01
Marital status				
Married	16.9± 7.5	5.4 ± 3.5	20.0 ± 4.3	3.19 ± 0.64
Single	17.5 ± 7.4	6.7 ± 4.27	19.8 ± 4.3	3.32 ± 0.62
	P^1=0.65	P^1=0.00	P^1=0.74	P^1=0.16
Is the profession valued as it deserves in the community?				
Yes	8.9 ± 5.2	3.1 ± 2.7	21.9 ± 4.7	3.83 ± 0.40
No	17.7 ± 7.3	6.0 ± 3.8	19.8 ± 4.2	3.18 ± 0.63
	P^1=0.00	P^1=0.00	P^1=0.04	P^2=0.00

[1] Student–t Test, [2] Mann Whitney U test

MBI-EE= Maslach Burnout Inventory - emotional exhaustion; MBI-D= Maslach Burnout Inventory – depersonalization; MBI-PA= Maslach Burnout Inventory - personal accomplishment

According to the logistic regression model findings, the risk of emotional exhaustion was 2.63-fold higher in the subjects not taking a vacation every year, 5.65-fold higher among physicians discontent with the family medicine system, and 10.95-fold higher among physicians thinking that their

expectations from the job were not met (p<0.05). The risk of depersonalization, personal accomplishment and general job satisfaction by various sociodemographic and professional characteristics is shown in tables 4, 5 and 6.

Table 4: Binary logistic regression analysis results concerning physician depersonalization.

Category	OR (95.0% C.I.)	p
Sex		
Female	1.00 (Ref.)	
Male	2.20 (1.03 – 4.66)	0.04
Age group		
40 or over	1.00 (Ref.)	
30-39	3.18 (1.45 – 7.01)	<0.01
29 or below	7.71 (2.79– 21.30)	0.01
Total professional experience		
18 years or more	1.00 (Ref.)	
11-17 years	1.81 (0.52 – 6.25)	0.34
7-10 years	3,73 (1,18 – 11,56)	0.02
6 years or less	4.99 (1,52 – 16.34)	<0.01
Opinions regarding choice of profession		
Correct choice	1.00 (Ref.)	
Partially wrong choice	2.02 (1.09 – 3.74)	0.02
Wrong choice	2.50 (1.11 – 5.61)	0.02

Binary logistic regression analysis, OR=Odds ratio.

Table 5: Binary logistic regression analysis results concerning the physician personal accomplishment subdimension

	OR (95.0% C.I.)	p
Age group		
29 or below	1.00 (Ref.)	
30-39	1.15 (0.62 – 2.13)	0.64
40 years and above	2.28 (1.50 – 4.92)	0.03
Total professional experience		
6 years or less	1.00 (Ref.)	
7 -10 years	0.70 (0.36 – 1,34)	0.28
11 -17 years	0.91 (0.43 – 1.91)	0.80
18 years or more	3.97 (1.30 – 12.1)	0.01
Opinions concerning choice of profession		
Wrong choice	1.00 (Ref.)	
Correct choice	2.97 (1.19 – 7.39)	0.01
Prtially wrong choice	1.70 (0.80 – 3.63)	0.16

Binary logistic regression analysis, OR=Odds ratio.

Table 6: Binary Logistic regression analysis results concerning the physician general job satisfaction dimension

	OR (95.0% C.I.)	p
Sex		
Male	1.00 (Ref.)	
Female	1.79 (1.30 – 3.20)	0.04
Place of residence		
Provincial center	1.00 (Ref.)	
District	2.24 (1.14 – 4.40)	0.01
Township/village	2.91 (1.70 – 7.95)	0.03
Opinions concerning choice of profession		
Wrong choice	1.00 (Ref.)	
Correct choice	5.66 (2.18 – 14.71)	<0.01
Partially wrong choice	3.95 (1.62 – 9.58)	<0.01

Binary logistic regression analysis, OR=Odds ratio.

Discussion

Our study determined low mean emotional exhaustion, depersonalization, and personal accomplishment scores in physicians working in primary health care institutions in Erzurum. Similar results to ours were reported in a study of family physicians in Sakarya [12]. Baykan et al. [13] reported lower mean emotional exhaustion and depersonalization and higher personal accomplishment scores compared to our findings in their study involving family physicians. In another study of burnout among health workers employed in the FHI, Elbi et al. [14] reported lower emotional exhaustion scores but higher personal accomplishment scores compared to ours. The differences between the studies may derive from study settings and regional or sociocultural factors.

Studies of primary care physicians in Portugal, Sweden, and Italy have determined similar mean emotional exhaustion and depersonalization scores to ours, but higher personal accomplishment scores [15–17]. Variations in pre- and post-graduation medical training, the lack of a gate control in Turkey, patient preferences to skip the referral stage and directly access to the secondary/tertiary health care institutions and limited number of applications to primary care physicians seeking treatment, physicians' self-perception of incompetency, all may be contributing to the low personal accomplishment scores.

General job satisfaction levels among the physicians in our study were moderate. Tekin [18] reported similar mean general job satisfaction levels among family physicians to those in our study. Mean general job satisfaction levels are known to rise in line with socioeconomic conditions conferred by the job. Studies from Eskisehir and Adana provinces in Turkey have reported higher job satisfaction levels [19,20]. This difference was attributed to the regional living conditions. Indeed, socioeconomic conditions in those two provinces are more advanced than Erzurum [21].

We found higher depersonalization scores and lower personal accomplishment scores in physicians aged 29 or less compared to those aged 40 or over. Increased professional experience, better ability to take independent decisions, possession of a certain status, and familiarity in coping with difficulties may have played a role in this. Our findings are similar to those of Baykan's study [13] of family physicians and Üner's study [22] of primary care physicians. No correlation was observed in our study between the age of family physicians and the job satisfaction scores. International [23,24] and Turkish [20,25–27] studies compatible with our own research have been published in the literature. Further studies are now needed in terms of demographic data capable of impacting on job satisfaction.

Male physicians had higher depersonalization scores than females. This is compatible with Baykan, Elbi, and Özyurt's studies [13,14,28]. On the other hand, general job satisfaction was higher among women, which is consistent with Ataoğlu's physician-based study [29]. This difference may be attributed to women being more sensing (particularly in face-to-face communication), and selfless. Women also find it easier to discuss problems than men, which may also contribute to experiencing fewer issues in the workplace [30].

Comparison of mean scores by place of the residence revealed no significant variation concerning mean burnout subdimension scores. However, Koşan [31] reported higher emotional exhaustion among workers in rural areas. In contrast to previous years, family physicians are allowed to choose their own places of work. Hence, this variation may derive from differences in the system. Subjects living in the provincial center in our study had lower general job satisfaction scores. Similarly, a study involving practicing physicians in Australia reported higher job satisfaction among physicians living in rural areas compared to those living in cities [32]. In a study including physicians from all levels of care in Erzurum, Sevimli [33] observed lower job satisfaction among doctors in rural areas compared to those living in the city center. Physicians choosing to work in rural areas on their own volition and doctors in rural areas receiving higher salaries than those in the city center may account for this variation.

Single subjects in our study scored higher regarding depersonalization than married participants. Şerik et al. [12] reported similar findings to ours. We may, therefore, conclude that positive, mutual sharing among married subjects means that they are less exposed to depersonalization. Marital status did not affect physicians' job satisfaction in our study. Several other studies from Turkey have also reported no effect of marital status on job satisfaction [34,35].

The risk of depersonalization was higher, and personal accomplishment scores were lower among physicians with professional experience of 6 years or less compared to those with 18 years or more. We think that this may be due to higher professional expertise associated with better problem-solving skills and an improved ability to combat burnout. More extensive professional experience may increase the physician's self-confidence and personal accomplishment. Our findings are compatible with those of Kaya's study [36] of primary care physicians. While we determined no relationship between physicians' length of experience and mean general job satisfaction scores, Sevimli's study [33] of physicians working in all levels of care in our region reported that job satisfaction increased with numbers of years worked.

Physicians who thought they had chosen the wrong profession had higher emotional exhaustion and depersonalization scores and lower personal accomplishment scores. Our results are comparable to those of another study in our region, reporting an increased risk of emotional exhaustion [31]. Physicians may think that their material and other professional expectations after a long and arduous training period are not being met. In addition, we determined higher general job satisfaction among physicians who believed they had made the right choice of profession. In Sevimli's study [33], job satisfaction was also higher among subjects who thought they had selected the right occupation.

Emotional exhaustion and depersonalization scores in our study were higher, and personal accomplishment and job satisfaction were lower among physicians who did not believe that the profession was not valued by society as much as it deserves. Increasing violence in the health sector in the recent years may have resulted in physicians' expectations failing to be met. Mean emotional exhaustion and depersonalization scores were higher and job satisfaction was lower among physicians who considered their working conditions to be inadequate. Previous studies have also shown that physical conditions in the workplace have a similar effect on physicians' burnout and job satisfaction levels [20,28,31]. Inadequate physical conditions in the workplace cause a decrease in the job satisfaction, impacting on work productivity, health, and social life. Working conditions are important in terms of personal comfort and of doing one's job well.

Our study reflects burnout and job satisfaction levels only among primary care physicians in the province of Erzurum, and these findings cannot be generalized to all general practitioners in Turkey. However, the principal strength of this study is that it is the first in our region since the transformation to the FMI.

In conclusion, job satisfaction and burnout levels among physicians working in primary health care services should be measured at specific intervals. Measures aimed at matters resulting in dissatisfaction should be introduced, and social activities designed at motivating all health workers should be arranged. Deficiencies in the existing system need to be overcome to reduce burnout and increase job satisfaction. Further research is needed into the relationship between physicians' professional perceptions, the esteem they enjoy in the society, and their job satisfaction.

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